Is the Suppression of Singleton Distractors Context Dependent?

Benjamin S. Dominguez, Seah Chang, Andrew B. Leber
Department of Psychology, The Ohio State University

Introduction

• Implicit learning plays a crucial role in attentional allocation.
• Previous Finding: context dependent location-based suppression is possible\(^1\).
• Does this finding generalize to feature-based suppression?

Purpose

• We sought to investigate whether suppression of color singleton distractors can occur in a context-dependent manner.

Approach

• We adapted context-dependent learning manipulation introduced by Allon & Leber (2019).

Methods

• N = 56
• Participants completed a modified additional singleton task\(^2\) consisting of 3 conditions, paired with a background.
  • High Probability (HP)
  • Low Probability (LP)
  • Singleton Absent (SA)

• Task: Find the odd shaped item and key in appropriate response **based on background** (gap or line judgment).

Results

• Equivalent RT capture for HP and LP conditions.

• Error rates show reduced capture in HP condition.

Discussion

• Mixed evidence for context-dependent control of learned color suppression.
  • No for RT
  • Yes for Error Rates
• Follow-up experiments will implement stronger manipulation.
  • To prevent suppression of both colors.

References


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